

REMARKS

Applicant respectfully requests reconsideration of this application and consideration of the following remarks. Specification was objected to for lacking: 1) the continuing data to reflect the patenting of U.S. Application Serial No. 09/551,411; and, 2) a brief description of Figure 11. The drawings were objected to for poor legibility. The specification is amended to include: 1) the continuing data to reflect the patenting of U.S. Application Serial No. 09/551,411, now U.S. Patent No. 6,366,303; and, 2) a brief description of Figure 11. A set of formal drawings, as they were submitted for the issued parent application, is submitted herewith to overcome the objection to the drawings due to the poor legibility.

Claims 1-25 were rejected for obviousness-type double patenting over claims 1-10 of U.S. Patent No. 6,601,062 and over claims 1-5 of U.S. Patent No. 6,366,303. Claims 1-11 were rejected under 35 U.S.C. 112, as being indefinite. Claims 12-15, 17-21 and 25 were rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 1, 11, 12, 16, 17, 22, 23 and 25 were rejected under U.S.C. 102(b) as being anticipated by Matthews (U.S. Patent No. 4,794,388, referred to as Matthews thereafter). Claims 2-8, 13 and 15 were rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews in view of alleged knowledge in the art. Claims 9-10, 14, 18-21 and 24 were rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews in view of Becker (U.S. Patent No. 5,136,690, referred to as Becker thereafter).

Claims 1, 3-4, 6-7, 9-16, 18-19, 21-22 and 24-25 are amended; claims 26-82 are added; and, claims 17 and 23 are cancelled. Thus, claims 1-16, 18-22 and 24-82 are pending.

Claims 1-11 were rejected under 35 U.S.C. 112, as being indefinite. Claims 1, 3-4, 6-7, 9-16, 18-19, 21-22 and 24-25 are amended to particularly point out and distinctly claim the subject matter.

Claims 12-15, 17-21 and 25 were rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 12 and 25 are amended to particularly point out and distinctly claim the methods of "successively repeating said decreasing and said locating, until the particular piece of data is actually accessed" (in claim 12) and "successively repeating said decreasing the scale and said moving the data field, until the particular piece of data is actually accessed" (in claim 25), which are clearly supported by Figure 11 and the specification (e.g., lines 15 – 29 on page 25). Applicant submits that the disclosure of Figure 11 and the specification enables one skilled in the art to make and/or use the invention as claimed in the amended claims 12 and 25. Claim 17 is cancelled.

Claims 1, 11, 12, 16, 17, 22, 23 and 25 were rejected under U.S.C. 102(b) as being anticipated by Matthews, which discloses a device to control zoom and range operations of a display device. However, Matthews is not related to the operation of a graphical user interface. In the prior art, a graphical user interface has only one cursor; and, different control elements of a graphical user interface were typically controlled one at a time by the cursor through a cursor positioning device. The amended independent claims 1, 12, 16, 22 and 25 recite "the scale being under control of a first control element of a graphical user interface" and "a position of the range relative to the data field being under control of a second control element of the graphical user interface". In at least one embodiment of the present invention, the scale and the position of the

range are controlled by two different control elements of a graphical user interface (e.g., a scale slider and a timeline); and, a cursor control device can be used to simultaneously control both control elements. For example, the amended claim 1 recites:

1. A method for accessing a broad data field having fine resolution comprising:
selecting a scale to control a range for accessing data within the data field,
the scale being under control of a first control element of a graphical user interface;
moving the range to encompass different portions of the data field, a
position of the range relative to the data field being under control of a second control element of the graphical user interface; and
changing simultaneously the scale while moving the range over different portions of the data field.

Since Matthews is not related to the control of a graphical user interface, Matthews does not anticipate the amended independent claims 1, 12, 16, 22 and 25. Applicant submits that dependent claims 2-11, 13-15, 18-21 and 23-24 incorporate the limitation of the respective independent claims; and, dependent claims 2-11, 13-15, 18-21 and 23-24 are patentable at least for the above reasons. Thus, the withdrawal of the rejection under U.S.C. 102(b) is respectfully requested.

Claims 2-8, 13 and 15 were rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews in view of alleged knowledge in the art. The Office Action mailed June 28, 2002 suggested that it would have been obvious to one of ordinary skill in the art to use a cursor positioning device to control scale and range according to Matthews. Even if an ordinary person skilled in the art were motivated to use a joystick (or a mouse or a trackball), which is a cursor positioning device, to control the zoom and range operations of a display device according to Matthews, as suggested in the Office Action mailed June 28, 2002, it would not be obvious to

one skilled in the art to simultaneously control the zoom and range operations represented by two different user interface elements in a graphical user interface, which were typically driven one at a time by a cursor. The disclosure of Matthews is not related to a graphical user interface with a cursor; thus, when the teach of Matthews is combined with the alleged knowledge in the art of graphical user interface, an ordinary person skilled in the art would at most envision a system that uses a joystick to control a display device in a special mode in which the joystick is not used to control the graphical user interface. Neither Matthews nor the allege knowledge in the art contains teaching related to using a cursor positioning device to simultaneously control multiple control elements of a graphical user interface. Thus, the withdrawal of the rejection under 35 U.S.C. 103(a) for claims 2-8, 13 and 15 is respectfully requested.

Claims 9-10, 14, 18-21 and 24 were rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews in view of Becker. The Office Action mailed June 28, 2002 suggested that it would have been obvious to one of ordinary skill in the art to use an input device in one mode to control the range and scale of data displayed from a database and to use the same input device to control the movement of a cursor in a second mode. However, as discussed above, neither Matthews nor Becker teaches how to simultaneously control different graphical user elements. Matthews teaches how to simultaneously control the zoom and range operation of a display device, which is not related to a graphical user interface. Thus, when the teaching of Matthews and Becker are combined, one of ordinary skill in the art would at most envision a system in which an input device is used in one mode to control the zoom and range operations of a display device and in another mode to control the cursor to individually controls the elements of a graphical user interface. It would not be obvious from the combined teaching of Matthews and Becker to use the input device to control a cursor of the graphical user interface in one mode, in which elements of a graphical user interface are controlled one at a time according to the position of the cursor, and to control multiple elements of the graphical user interface simultaneously in another mode. Thus, the withdrawal of the rejection under 35 U.S.C. 103(a) for claims 9-10, 14, 18-21 and 24 is respectfully requested.

New independent claims 26, 34 and 42 recite: "remapping control of the input device to control both a scale and a position, the scale and the position specifying a portion of the data field for access". In one embodiment of the present invention, the control of the input device for the cursor is *remapped* to control both the scale and the position of data access. Neither Matthews nor Becker teaches such a remapping operation. Further, Matthews teaches a hardware control of a display device, while Becker teaches a software control through a graphical user interface. Thus, even if the teaching of Matthews and Becker were combined to use an input device for controlling a cursor in one mode according to Becker and for controlling the zoom and range operations for a display device in another mode according to Matthews, it would not be obvious to *remap* the cursor control for controlling the display device. Thus, at least for the above reasons, the new claims 26-49 are patentable over the prior art.

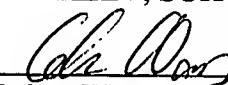
Claims 1-25 were rejected for obviousness-type double patenting over claims 1-10 of U.S. Patent No. 6,601,062 and over claims 1-5 of U.S. Patent No. 6,366,303. However, claims 1-16, 18-22 and 24-82, as amended, recite the limitation of simultaneously control two parameters which are under control of two different elements (e.g., a slider and a timeline) of a graphical user interface, which is not obvious in view of claims 1-10 of U.S. Patent No. 6,601,062 and over claims 1-5 of U.S. Patent No. 6,366,303.

Please charge any shortages or credit any overages to Deposit Account No. 02-2666. Furthermore, if an extension is required, Applicant hereby requests such extension.

Respectfully submitted,

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VERSION OF CLAIMS WITH MARKINGS

1. (Amended) A method for accessing a broad data field having fine resolution comprising:
selecting a [first] scale [from a variable scale for controlling] to control a [magnification]
range for accessing data within the data field, the scale being under control of a
first control element of a graphical user interface;
moving the range to encompass different portions of the data field, a position of the range
relative to the data field being under control of a second control element of the
graphical user interface; and
changing simultaneously the scale while moving the range over different portions of the
data field.
2. The method as defined by Claim 1 wherein the scale is controlled by moving a cursor
positioning device along a first axis.
3. (Amended) The method as defined by Claim 2 wherein the position of the range
[movement] is controlled by moving [a] the cursor positioning device along a second
axis.
4. (Amended) The method as defined by Claim 2 wherein the position of the range
[movement] is controlled by moving the cursor positioning device in an axis orthogonal
to the [scale] first axis.
5. The method as defined by Claim 4 wherein moving the cursor positioning device in an
upward motion increases the scale and moving the cursor positioning device in a
downward motion decreases the scale.

6. (Amended) The method as defined by Claim 5 wherein moving the cursor positioning device to the right causes the range to be shifted to the right and moving the [mouse] cursor positioning device to the left causes the range to be shifted to the left.
7. (Amended) The method as defined by Claim 6 wherein [the] a particular piece of data can be accessed within the data field having [six] five orders of magnitude.
8. The method as defined by Claim 7 wherein the range is depicted by a timeline.
9. (Amended) The method as defined by Claim 8 wherein the cursor positioning device is also capable of controlling the position of a cursor of the graphical user interface on a display screen.
10. (Amended) The method as defined by Claim 9 wherein the scale and the position of the range are capable of being simultaneously controlled by the cursor positioning device after positioning [a] the cursor over an icon and depressing a button.
11. (Amended) The method as defined by Claim 10 wherein the cursor positioning device is at least one of a mouse, a track ball, a touch tablet, joystick.
12. (Amended) A method for accessing a particular piece of data within a broad data field having fine resolution comprising:

selectively varying a scale, thereby determining a range, the range spanning a portion of the data field, the scale being under control of a first control element of a graphical user interface;

moving the range relative to the data field, thereby encompassing portions of the data field such that the particular piece of data lies within the range, a position of the range relative to the data field being under control of a second control element of the graphical user interface;

locating a [first] point close to the location of the particular piece of data within the data field using the second control element;

decreasing the scale, thereby increasing the range's resolution, while simultaneously moving the range relative to the data field to keep the [first] point within the [decreased] range[;

locating a second point which is closer to the location of the particular piece of data than the first point's location;

decreasing the scale while simultaneously moving the range relative to the data field to keep the second point residing within the range]; and

successively [decreasing the scale while scanning across the range, locating points successively closer to the location of the particular piece of data, and keeping the point that is closest to the location of the particular piece of data within the range] repeating said decreasing and said locating, until the particular piece of data is actually accessed.

13. (Amended) The method as defined by Claim 12 wherein the scale is controlled by moving a mouse along an axis and the position of the range is controlled by moving the mouse along another axis.
14. (Amended) The method as defined by Claim 13 wherein the mouse is also capable of controlling the position of a cursor of the graphical user interface on a display screen.
15. (Amended) The method as defined by Claim 12 wherein the scale is controlled by moving a trackball along an axis and the position of the range [movement] is controlled by moving the trackball along another axis.
16. (Amended) An apparatus for accessing a broad data field having fine resolution comprising:
a means for selecting a [variable] scale for controlling a range within the data field, the scale being under control of a first control element of a graphical user interface;
a means for moving the range to encompass different portions of the data field, a position of the range relative to the data field being under control of a second control element of the graphical user interface; and
a means for [enabling a user to] simultaneously selecting the scale while moving the range over different portions of the data field.
17. (Cancelled) The apparatus as defined by Claim 16 further comprising:

a means for accessing one particular piece of data within the data field, the accessing means including:

a means for scanning data encompassed by the range corresponding to a selected scale;

a means for showing points close to the location of the particular piece of data;

a means for successively decreasing the scale, thereby decreasing the range, resulting in the increase of the range's resolution while simultaneously, locating points successively closer to the location of the particular piece of data and keeping the closest point within the successively decreasing range, until the particular piece of data is actually accessed.

18. (Amended) The apparatus as defined by Claim [17] 16 including a switching means for switching [the] a mouse [control] between controlling a cursor's position on a display screen and controlling the scale and the position of the range.
19. (Amended) The apparatus as defined by Claim 18 wherein the scale is controlled by moving [a] the mouse along an axis and the position of the range is controlled by moving the mouse along another axis.
20. (Cancelled) The apparatus as defined by Claim 19 wherein rightward and upward movement of the mouse corresponds to increasing a parameter and leftward and downward mouse movement corresponds to decreasing the parameter.

21. (Amended) The apparatus as defined by Claim [20] 19 wherein the range is depicted as a timeline.
22. (Amended) A method for accessing a data set containing a plurality of items comprising:
[providing an input device having two degrees of freedom in a first and a second axis;
providing a means for selecting a scale of access to the data set;
providing a means for adjusting a position of access at the selected scale;]
selecting [the] a scale of access to the data set [by controlling the] according to input
from an input device with relation to [the] a first axis of a first degree of freedom
of the input device, the scale being under control of a first control element of a
graphical user interface; and
selecting [the] a position of access to the data set at the scale [by controlling] according to
input from the input device with relation to [the] a second axis of a second degree
of freedom of the input device while the first degree of freedom of the input
device controls said selecting the scale in the first graphical user interface
element, the position being under control of a second control element of the
graphical user interface.
23. The method as defined by Claim 22 wherein the input device is at least one of a mouse, a track ball, a touch tablet, a joystick.

24. (Amended) The method as defined by Claim 23 wherein the first and the second axes of the input device are capable of being remapped such that the input device controls positioning a cursor of the graphical user interface on a display screen.

25. (Amended) A method for accessing a particular piece of data within a broad data field having fine resolution comprising:

[providing an input device having a first and a second degree of freedom;
providing a variable scale to depict the data field at different magnification levels, the scale being controlled by the first degree of freedom of the input device;
providing a range which encompasses a continuous portion of the data set;]
selecting a scale wherein the particular piece of data lies within [the] a range which encompasses a continuous portion of the data set, the scale depicting a magnification level of the data field, the scale being controlled by a first degree of freedom of an input device in a first control element of a graphical user interface;
decreasing the scale such that the magnification level is increased;
changing [the] a span of the data field covered by the range, according to the scale selected;
moving the data field such that the particular piece of data falls within the range, [the movement] said moving controlled by [the] a second degree of freedom of the input device in a second control element of the graphical user interface while the first degree of freedom of the input device controls the first control element; and

successively repeating [the steps of] said decreasing the scale and said moving the data field [such that the particular piece of data falls within the range], until the particular piece of data is actually accessed.